



Sequence Listing

SEQUENCE LISTING

<110> HONDA, Mitsuo
MATSUO, Kazuhiro
KANEKIYO, Masaru

<120> A recombinant BCG vaccine

<130> 2005-0221A/JFW/00653

<140> 10/524,586

<141> 2005-02-15

<150> JP2002-237610

<151> 2002-08-16

<160> 13

<210> 1

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligonucleotide

<400> 1

aatggatcct atagtcgaga acctc 25

<210> 2

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligonucleotide

<400> 2

aatgggcccct tacaaaactc ttgctttatg g 31

<210> 3

<211> 706

<212> DNA

<213> Artificial Sequence

<220>

<221> CDS

<222> (5)..(700)

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

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Pro Ile Val Gln Asn Leu Gln Gly Gln Met Val His Gln Ala Ile
1 5 10 15

tcg ccg cgc acc ctg aac gcc tgg gtc aag gtc gtc gag gag aag gcc 97
Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Val Glu Glu Lys Ala

20								25				30				
ttc	tcg	ccg	gag	gtc	atc	ccg	atg	ttc	tcg	gcc	ctg	tcg	gag	ggc	gcc	145
Phe	Ser	Pro	Glu	Val	Ile	Pro	Met	Phe	Ser	Ala	Leu	Ser	Glu	Gly	Ala	
			35					40					45			
acc	ccg	cag	gac	ctg	aac	acc	atg	ctg	aac	acc	gtc	ggc	ggc	cac	cag	193
Thr	Pro	Gln	Asp	Leu	Asn	Thr	Met	Leu	Asn	Thr	Val	Gly	Gly	His	Gln	
		50					55				60					
gcc	gcc	atg	cag	atg	ctg	aag	gag	acc	atc	aac	gag	gag	gcc	gcc	gag	241
Ala	Ala	Met	Gln	Met	Leu	Lys	Glu	Thr	Ile	Asn	Glu	Glu	Ala	Ala	Glu	
	65					70					75					
tgg	gac	cgc	ctg	cac	ccg	gtc	cac	gcc	ggc	ccc	atc	gca	ccg	ggc	cag	289
Trp	Asp	Arg	Leu	His	Pro	Val	His	Ala	Gly	Pro	Ile	Ala	Pro	Gly	Gln	
	80				85					90					95	
atg	cgc	gag	cct	cgc	ggc	tcg	gac	atc	gcc	ggc	acc	acc	tcg	acc	ctc	337
Met	Arg	Glu	Pro	Arg	Gly	Ser	Asp	Ile	Ala	Gly	Thr	Thr	Ser	Thr	Leu	
				100					105					110		
cag	gag	cag	atc	ggc	tgg	atg	acc	cac	aac	ccg	ccg	atc	ccg	gtc	ggc	385
Gln	Glu	Gln	Ile	Gly	Trp	Met	Thr	His	Asn	Pro	Pro	Ile	Pro	Val	Gly	
			115					120					125			
gag	atc	tac	aag	cgc	tgg	atc	atc	ctg	ggc	ctg	aac	aag	atc	gtc	cgc	433
Glu	Ile	Tyr	Lys	Arg	Trp	Ile	Ile	Leu	Gly	Leu	Asn	Lys	Ile	Val	Arg	
		130					135					140				
atg	tac	tcg	ccg	acc	tcg	atc	ctg	gac	atc	cgc	cag	ggt	ccg	aag	gag	481
Met	Tyr	Ser	Pro	Thr	Ser	Ile	Leu	Asp	Ile	Arg	Gln	Gly	Pro	Lys	Glu	
	145					150					155					
ccg	ttc	cgc	gac	tac	gtc	gac	cgc	ttc	tac	aag	acc	ctc	cgc	gcc	gag	529
Pro	Phe	Arg	Asp	Tyr	Val	Asp	Arg	Phe	Tyr	Lys	Thr	Leu	Arg	Ala	Glu	
	160				165					170					175	
cag	gcg	tcg	cag	gag	gtc	aag	aac	tgg	atg	acc	gag	acc	ctg	ctg	gtc	577
Gln	Ala	Ser	Gln	Glu	Val	Lys	Asn	Trp	Met	Thr	Glu	Thr	Leu	Leu	Val	
				180					185					190		
cag	aac	gcc	aac	ccg	gac	tgc	aag	acc	atc	ctg	aag	gcc	ctg	ggt	ccg	625
Gln	Asn	Ala	Asn	Pro	Asp	Cys	Lys	Thr	Ile	Leu	Lys	Ala	Leu	Gly	Pro	
			195					200					205			
ggc	gcc	acc	ctg	gag	gag	atg	atg	acc	gcc	tgc	cag	ggc	gtc	ggc	ggc	673
Gly	Ala	Thr	Leu	Glu	Glu	Met	Met	Thr	Ala	Cys	Gln	Gly	Val	Gly	Gly	
		210					215					220				
ccg	ggc	cac	aag	gcg	cgc	gtc	ctg	taa	gggccc							706
Pro	Gly	His	Lys	Ala	Arg	Val	Leu									
	225					230										

<210> 4

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligopeptide

<400> 4

Leu Glu Arg Phe Ala Val Asn Pro Gly Leu Leu Glu Thr Ser Glu
1 5 10 15

<210> 5

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligopeptide

<400> 5

Asn Ile Gln Gly Gln Met Val His Gln Ala Ile Ser Pro Arg Thr
1 5 10 15

<210> 6

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligopeptide

<400> 6

Met Ala Lys Thr Ile
1 5

<210> 7

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligopeptide

<400> 7

Met Ala Lys Thr Ile Ala Arg Gly Asp Pro Ile Val Gln
1 5 10

<210> 8

<211> 85

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of artificial Sequence: Synthetic oligonucleotide

<400> 8

atggccaaga caattgctcg aggggatccg ggcccagcg aggagcccgg tccctttgtg 60
gggccgggct cctctggttg gtacc 85

<210> 9

<211> 39

<212> DNA

<213> Artificial Sequence

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<223> Description of artificial Sequence: Synthetic oligonucleotide

<400> 9
atggccaaga caattgctcg aggggatccg atcgtgcag 39

<210> 10
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of artificial sequence: Synthetic oligonucleotide

<400> 10
atggccaaga caattgctcg aggggatcct atagtgcag 39

<210> 11
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of artificial sequence: Synthetic oligonucleotide

<400> 11
cgcgtcctgt aagggcc 18

<210> 12
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of artificial sequence: Synthetic oligonucleotide

<400> 12
agagttttgt aagggcc 18

<210> 13
<211> 706
<212> DNA
<213> Artificial Sequence

<220>
<221> CDS
<222> (5)..(700)

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 13
ggat cct ata gtg cag aac ctc cag ggg caa atg gta cat cag gcc ata 49
Pro Ile Val Gln Asn Leu Gln Gly Gln Met Val His Gln Ala Ile
1 5 10 15

tca cct aga act tta aat gac tgg gta aaa gta gta gaa gag aag gtt 97
Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Val Glu Glu Lys Ala
20 25 30

ttc agc cca gaa gta ata ccc atg ttt tca gca tta tca gaa gga gcc 145
Phe Ser Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser Glu Gly Ala

35					40					45						
acc	cca	caa	gat	tta	aat	acc	atg	cta	aac	aca	gtg	ggg	gga	cat	caa	193
Thr	Pro	Gln	Asp	Leu	Asn	Thr	Met	Leu	Asn	Thr	Val	Gly	Gly	His	Gln	
		50					55					60				
gca	gcc	atg	caa	atg	tta	aaa	gag	acc	atc	aat	gag	gaa	gct	gca	gaa	241
Ala	Ala	Met	Gln	Met	Leu	Lys	Glu	Thr	Ile	Asn	Glu	Glu	Ala	Ala	Glu	
	65					70					75					
tgg	gat	aga	ttg	cat	cca	gtg	cat	gca	ggg	cct	att	gca	cca	ggc	cag	289
Trp	Asp	Arg	Leu	His	Pro	Val	His	Ala	Gly	Pro	Ile	Ala	Pro	Gly	Gln	
	80				85					90					95	
atg	aga	gaa	cca	agg	gga	agt	gac	ata	gca	gga	act	act	agt	acc	ctt	337
Met	Arg	Glu	Pro	Arg	Gly	Ser	Asp	Ile	Ala	Gly	Thr	Thr	Ser	Thr	Leu	
				100					105					110		
cag	gaa	caa	ata	gga	tgg	atg	aca	cat	aat	cca	cct	atc	cca	gta	gga	385
Gln	Glu	Gln	Ile	Gly	Trp	Met	Thr	His	Asn	Pro	Pro	Ile	Pro	Val	Gly	
			115					120					125			
gaa	atc	tat	aaa	aga	tgg	ata	atc	ctg	gga	tta	aat	aaa	ata	gta	aga	433
Glu	Ile	Tyr	Lys	Arg	Trp	Ile	Ile	Leu	Gly	Leu	Asn	Lys	Ile	Val	Arg	
		130					135					140				
atg	tat	agc	cct	acc	agc	att	ctg	gac	ata	aga	caa	gga	cca	aag	gaa	481
Met	Tyr	Ser	Pro	Thr	Ser	Ile	Leu	Asp	Ile	Arg	Gln	Gly	Pro	Lys	Glu	
	145					150					155					
ccc	ttt	aga	gac	tat	gta	gac	cga	ttc	tat	aaa	act	cta	aga	gcc	gag	529
Pro	Phe	Arg	Asp	Tyr	Val	Asp	Arg	Phe	Tyr	Lys	Thr	Leu	Arg	Ala	Glu	
	160				165					170					175	
caa	gct	tca	caa	gag	gta	aaa	aat	tgg	atg	aca	gaa	acc	ttg	ttg	gtc	577
Gln	Ala	Ser	Gln	Glu	Val	Lys	Asn	Trp	Met	Thr	Glu	Thr	Leu	Leu	Val	
				180					185					190		
caa	aat	gcg	aac	cca	gat	tgt	aag	act	att	tta	aaa	gca	ttg	gga	cca	625
Gln	Asn	Ala	Asn	Pro	Asp	Cys	Lys	Thr	Ile	Leu	Lys	Ala	Leu	Gly	Pro	
			195					200					205			
gga	gcg	aca	cta	gaa	gaa	atg	atg	aca	gca	tgt	cag	gga	gtg	ggg	gga	673
Gly	Ala	Thr	Leu	Glu	Glu	Met	Met	Thr	Ala	Cys	Gln	Gly	Val	Gly	Gly	
		210					215					220				
ccc	ggc	cat	aaa	gca	aga	gtt	ttg	taa	gggccc							706
Pro	Gly	His	Lys	Ala	Arg	Val	Leu									
	225					230										